

### **REMARKS/ARGUMENTS**

These remarks are made in response to the Office Action of November 13, 2007 (Office Action). As this response is timely filed within the 3-month shortened statutory period, no fee is believed due. However, the Examiner is expressly authorized to charge any deficiencies to Deposit Account No. 50-0951.

### **Claims Rejections – 35 USC § 103**

In the Office Action, Claims 1-30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,724,887 to Eilbacher, *et al.* (hereinafter Eilbacher) in view of U.S. Published Patent Application 2004/0172323 to Stamm and further in view of U.S. Published Patent Application 2005/0086186 to Sullivan, *et al.* (hereinafter Sullivan).

Although Applicants respectfully disagree with the rejections, Applicants have amended the claims to further emphasize certain aspects of the invention and to expedite prosecution of the present application. However, such amendments should not be interpreted as the surrender of any subject matter, and Applicants reserve the right to present the original version of any of the amended claims in any future divisional or continuation applications from the present application.

In particular, Applicants have amended independent Claims 1, 10, 13, 17-19, and 28 to further emphasize certain aspects of the invention. As discussed herein, the claim amendments are fully supported throughout the Specification. No new matter has been introduced by the claim amendments.

**Aspects of Applicants' Invention**

It may be helpful to reiterate certain aspects of Applicants' invention prior to addressing the cited references. One embodiment of the invention, as typified by amended Claim 1, is a method for managing customer relationship management (CRM) resources.

The method can include communicatively linking a service router to a plurality of service resources; and for each of the service resources, establishing at least one routing criterion. (See, e.g., Fig. 1.) The method also can include receiving a plurality of service requests via a plurality of communication channels; analyzing the service requests for request characteristics; comparing the request characteristics to routing criteria; and automatically routing each of said service requests to a selected service resource based at least in part upon the comparing step. (See, e.g., Fig. 5; see also Specification, paragraphs [0049]-[0051].)

The method further can include obtaining a feedback from a feedback warehouse. The feedback warehouse can contain information automatically captured about previous interactions from a variety of sources including scanned documents, surveys, data mining results, external automated feedback, and/or internal automated feedback mechanisms, updating at least one of a skills base and a profile of the service resources based on the feedback; and dynamically determining an appropriate routing based upon the updated skills base and/or profile of the service resources and the existing routing criteria (See, e.g., Fig. 3; see also Specification, paragraphs [0052]-[0054].)

**Applicants' Invention Predates Stamm**

Applicants believe that any rejections are moot because Applicants' invention predates the earliest effective date February 28, 2003 of Stamm.

The inventors of the present invention conceived their invention at least as early as October 3, 2002 and actively pursued its reduction to practice from a date prior to the effective dates of Stamm. In support of their assertions of conception, diligence, and constructive reduction to practice, Applicants submit the Declarations attached hereto in accordance with 37 CFR § 1.131 along with other supporting evidence of inventors' diligence in pursuing the present Application. The Declarations provide the sworn testimony of the inventors affirming their conception and continuing diligence from a time prior to the effective dates of Stamm to the filing of the instant Application.

Along with these Declarations, Applicants also submit herewith a copy of a confidential invention disclosure, No. BOC8-2002-0105, titled "System for Recognition of CSR Interaction Effectiveness" (hereinafter Disclosure). The Disclosure was submitted on February 24, 2003 to a Patent Attorney/Intellectual Property (IP) Professional employed by the assignee of the present invention, International Business Machines Corporation (IBM).

The Disclosure explicitly describes the present invention. The written description provided in the Disclosure is clear evidence of the inventors' conception of the claimed subject matter at least as early as October 3, 2002.

The Disclosure is an IBM confidential disclosure form. As such, it is a standardized document that, according to established IBM procedures, is used by IBM inventors to document the conception of an invention. Strictly-followed internal procedures established by IBM govern the use of all such confidential disclosure forms. One aspect of IBM's established procedures governing the use of such confidential disclosure forms is that no substantive modifications can be made to a confidential disclosure after it has been submitted to an IBM Patent Attorney/IP Professional.

Applicants exercised due diligence from prior to the effective dates of Stamm to the date that the Application was filed. As expressly affirmed in the Declarations,

Applicants, from at least the effective dates of Stamm, through the filing of the Application on June 24, 2003, worked diligently toward a constructive reduction to practice of the invention. Applicants initially worked with IBM's own in-house Patent Attorneys/IP professionals during an internal review of the invention, including assessing the invention in the context of related literature. Subsequently, Applicants worked with Patent Attorneys retained by IBM (outside counsel) to prepare and file the Application.

Outside counsel prepared the Application consistent with long-established professional practices, according to which cases are prepared on a first-in, first-out basis unless a particular application is associated with a bar date; those applications associated with bar dates are granted priority within the work queue. Outside counsel followed this professionally-accepted practice in preparing the Application in this case.

The written description and each of the claims of the Application were prepared based upon the Applicants' attached Disclosure. Moreover, according to IBM's established procedures governing the use of such disclosures and Applicants' sworn testimony in the Declarations, the inventors reviewed the Application prior to its submission to the U.S. Patent and Trademark Office in order to ensure that the claims and written description contained therein were fully supported by the Disclosure.

The following documentary evidence is submitted herewith showing Applicants' due diligence:

- Exhibit A is a letter from an IBM Patent Attorney requesting outside counsel prepare the Application, dated February 24, 2003.
- Exhibit B is a letter from outside counsel confirming receipt of the instructions, dated February 25, 2003.
- Exhibit C is an email letter, dated June 11, 2003, from outside counsel requesting review and approval of the Application drafted by the inventors.

- Exhibit D is an email letter, dated June 18, 2003, from the inventor Flores to outside counsel, approving the draft Application.
- Exhibit E is an email letter, dated June 20, 2003, from outside counsel requesting review and final approval of the Application, together with Declaration and Power of Attorney and Assignment for the inventors to sign.
- Exhibit F is a copy of the Declaration and Power of Attorney signed by the inventors on June 23, 2003 and filed with the Application on June 24, 2003, evidencing the inventors' approval of the application.

Applicants respectfully submit that it was reasonable for them and the Assignee of their invention, IBM, to rely on outside counsel in preparing the Application, and that outside counsel acted with diligence. Applicants and outside counsel operated under the constraints of other work obligations while preparing the Application. As noted in MPEP § 2138.06, inventors and their patent attorneys are never required to drop all other work to deal with an issue in a patent application. Applicants therefore submit that Applicants and their Patent Attorneys diligently pursued completion and filing of the present application without any unreasonable delays.

Accordingly, Applicants respectfully submit that Applicants' Declarations, coupled with the documentary evidence of specific activity on specific dates, clearly evidences Applicants' prior conception and diligence in pursuing an actual and constructive reduction to practice from a time prior to the effective dates of Stamm. Applicants therefore respectfully request withdrawal of all rejections in connection with Stamm.

**The Claims Define Over The Prior Art**

Although Applicants believe that the rejections under § 103 in the Office Action are considered moot due to the unavailability of Stamm as a prior art reference,

Applicants would like to make the following comments with regard to the cited prior art references.

It was stated in the Office Action that Eilbacher does not disclose obtaining a feedback from a feedback warehouse containing information about previous interactions a plurality of sources including at least one of scanned documents, surveys, data mining results, external automated feedback, and internal automated feedback mechanisms, or dynamically altering values for the routing criteria based upon the feedback. However, it was asserted in the Office Action that these limitations are disclosed by Stamm and Sullivan, respectively.

Stamm provides an improved customer feedback method and system. The feedback mechanism is based on survey processes executed with identification of a customer-sampling group. Stamm further describes the contacting of the customer-sampling group and reports summarizing the collected feedback being forwarded to supervisory personnel. Sullivan provides a system for controlling information output based on user feedback based on a plurality of information sources.

However, the present invention differs from the cited prior art in that it utilizes data mining and analytics technology on a data warehouse to enhance/update the customer service representative (CSR) skills base and to update the CSR profile for routing of incoming customer calls to an appropriate CSR. The present invention utilizes the resulting CSR profile in conjunction with existing contact center routing rules (such as CSR availability or physical location) to determine the appropriate "intelligent routing" to be performed. It would not have been obvious to one skilled in the art to tie the resulting profile information to the contact center routing rules to ensure that an appropriate CSR is interacting with the client based on the analysis of all of the data.

Moreover, the present invention differs from Stamm and Sullivan in the following respects:

- The present invention creates a feedback mechanism which relies on data mining and analytics based on a "feedback warehouse." The information in the warehouse includes information about previous interactions from a variety of sources including automated approaches to capturing client interactions. This is unique to the present invention.
- In the present invention, sources that provide updates for the warehouse include scanned documents, surveys, data mining results, external automated feedback and internal automated feedback mechanisms. Sullivan does not describe data mining and analytics to be done on the data in the data warehouse, but instead describes metrics to apply to determine resources and feedback to be requested.
- The present invention uses the warehouse information in an automated fashion in the intelligent routing. This is still unique in the present invention.
- The present invention creates a feedback warehouse so that various criteria can be stored and easily expand to include new criteria in the future.
- The present invention also includes a tool (Fig. 4) for monitoring and modification of service resources and their efficiency rates.

It would not have been obvious to provide routing to a variety of channels based on the skills and values of previous interactions which are mined and analyzed and the results including in the routing rules. The present invention highlights the integration of analyzed data into the routing rules applied for the interaction with customers utilizing various channels. The present invention also utilizes typical routing rules and augments these routing rules with the results of the analyzed data obtained from the "feedback warehouse". None of the features are contemplated in the prior art.

The present invention is further novel in that it utilizes routing criteria based on identification of communication channel, but then leverages the results of analyzed data

obtained from the "feedback warehouse" to further refine the appropriate routing rules and determine the appropriate CSR based on all the information.

The present invention differs from Sullivan in that the present invention provides the on-going collection of information from sources as well as additional mechanism and store this information in the "feedback warehouse". The data in the "feedback warehouse" is mined/analyzed and the results of this are utilized to augment the routing rules for the contact center.

The present invention stores information into a "feedback warehouse" and uses data mining and analytics techniques for determining value to subsequently be utilized in intelligent routing of incoming customer calls to appropriately determined CSRs. Again, these features likewise are not taught or suggested by the references. The values being administered in Sullivan are the routing criteria for the creation of what should be routed as objects for the input resources. The present invention uses the "feedback warehouse" value to determine how to route a call in conjunction with existing routing rules to determine an appropriate CSR to handle the call.

It is, therefore, believed that none of the cited references, individually or in combination, discloses or suggests all the features of the present invention as claimed. Applicants thus respectfully request that the claims rejections under 35 U.S.C. § 103 be withdrawn.

### **CONCLUSION**

Applicants believe that this application is now in full condition for allowance, which action is respectfully requested. Applicants request that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the



Appln No. 10/602,287  
Amendment dated January 14, 2008  
Reply to Office Action of November 13, 2007  
Docket No. BOC9-2003-0013 (383)

Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

AKERMAN SENTERFITT

Date: January 14, 2008

/Richard A. Hinson/

Gregory A. Nelson, Registration No. 30,577

Richard A. Hinson, Registration No. 47,652

Yonghong Chen, Registration No. 56,150

Customer No. 40987

Post Office Box 3188

West Palm Beach, FL 33402-3188

Telephone: (561) 653-5000